AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An inlet for a jet engine having variable geometry to alter airflow, the inlet comprising:

lip structure defining the inlet, the lip structure comprising a wall that includes an inner surface and an outer surface, the outer surface comprising:

a first portion; and

a second portion that is pivotally coupled to the inner surface at a forward end with a hinge and is separable from the first portion at an aft end ; and

an actuator structure associated with ~~at least a~~ the outer surface second portion ~~of the lip structure~~ and operable to vary the geometry of the inlet by pivoting the outer surface second portion about the hinge at the forward end such that the aft end separates from the outer surface first portion, moving outwardly and forward from the outer surface first portion, so that the outer surface second portion forms an extension of the inner surface projecting forward of the forward end.

2. (currently amended) The inlet of claim 1, wherein the geometry of the inlet is variable between at least **[[a]]**:

a first configuration in which the ~~at least a portion of the lip structure~~ outer surface second portion projects forward of the outer surface second portion forward end to form ~~forms~~ a rounded inlet lip ~~portion extending forwardly of the inlet~~; and

a second configuration in which the ~~at least a portion of the lip structure~~ outer surface second portion is retracted such that the outer surface second portion aft end aligns with the outer surface first portion to form ~~forms~~ an aerodynamically smooth outer surface ~~of the housing~~.

3. (currently amended) The inlet of claim **[[1]]**, 2 wherein the actuator structure is coupled to the ~~at least a portion of the lip structure~~ outer surface second portion at two points to alter the curvature of the ~~at least a portion of the lip structure~~ outer surface second portion forward end about the two points when in the first configuration.

4. (original) The inlet of claim 1, wherein the actuator structure includes a linkage assembly.

5. (original) The inlet of claim 4, wherein the linkage assembly includes a four-bar linkage.

6. (original) The inlet of claim 1, wherein the inlet comprises a side inlet.

7. through 12. (cancelled)

13. (currently amended) A jet engine for a mobile platform, the engine comprising:

a housing including ~~a forward end portion and~~ an inlet ~~formed at the forward end portion~~ having a wall that includes an inner surface and an outer surface;

a variable camber skin portion of the outer surface that is hingedly coupled to the inner surface at a ~~to the~~ forward end ~~portion~~ and separable from a static portion of the outer surface at an aft end;

a linkage assembly retractable within a recess of the inlet wall and coupled to the ~~forward end portion and~~ the camber skin portion, the linkage assembly operating to rotate the camber skin portion at the forward end ~~relative to the forward end portion and~~ such that the aft end separates from outer surface static portion, moving outwardly and forward from the outer surface static portion, so that the camber skin portion forms an extension of the inner surface that project forward of the camber skin portion forward end to alter a curvature of the camber skin portion **[[to]]** thereby ~~configure~~ configuring the camber skin portion ~~into a corresponding one of a plurality of configurations, the plurality of configurations including at least:~~

~~a first configuration in which the skin portion forms~~ to form a rounded inlet lip ~~portion extending forwardly of the inlet; and~~

~~a second configuration in which the skin portion and the linkage assembly are retracted within a recessed area in the housing to form an outer surface of the housing~~.

14. (currently amended) The engine of claim 13, wherein ~~the skin portion in the second configuration forms an~~ the linkage assembly is further operable to retract within the recess to move the camber skin portion from projecting forward of the camber skin portion forward end to a retracted position in which the camber skin portion aft end

aligns with the outer surface static portion to form an aerodynamically smooth outer surface ~~of the housing~~.

15. (currently amended) The engine of claim **[[**13**]]** 14, wherein:

the mobile platform comprises an aircraft;

the ~~first configuration is used~~ camber skin portion is protected forward during takeoff and landing of the aircraft; and

the ~~second configuration is used~~ camber skin is retracted while the aircraft is in a cruise mode of operation.

16. (currently amended) The engine of claim 13, wherein the linkage assembly is coupled to the camber skin portion at two points to alter the curvature of the skin portion about the two points.

17. (currently amended) The engine of claim 13, further comprising an actuator coupled to the linkage assembly ~~and the forward end portion~~ for extending and retracting the linkage assembly.

18. (original) The engine of claim 17, wherein the linkage assembly includes a four-bar linkage.

19. (original) The engine of claim 13, wherein the housing comprises a nacelle.

20. (original) The engine of claim 13, wherein the inlet comprises a side inlet.

21. (currently amended) The engine of claim 13, wherein:

the inlet includes a first inlet lip portion and a second inlet lip portion disposed aft of the first inlet lip portion; and

the camber skin portion is ~~hingedly coupled to~~ included in the second inlet lip portion.

22. (cancelled)

23. (currently amended) An aircraft, comprising:

an engine nacelle including ~~a forward end portion and~~ an inlet ~~formed at the forward end portion~~ having a wall that includes an inner surface and an outer surface;

a variable camber skin portion of the outer surface that is hingedly coupled to the inner surface at a ~~to the~~ forward end ~~portion~~ and separable from a static portion of the outer surface at an aft end;

a linkage assembly retractable within a recess of the inlet wall and coupled to the ~~forward end portion and~~ camber skin portion, the linkage assembly operating to rotate the camber skin portion at the forward end ~~relative to the forward end portion and~~ such that the aft end separates from outer surface static portion, moving outwardly and forward from the outer surface static portion, so that the chamber skin portion forms an extension of the inner surface that projects forward of the camber skin portion forward end to alter a curvature of the camber skin portion **[[**to**]]** thereby ~~configure~~ configuring the camber skin portion ~~into a corresponding one of a plurality of configurations, the plurality of configurations including at least:~~

~~a first configuration in which the skin portion forms~~ to form a rounded inlet lip ~~portion extending forwardly of the inlet; and~~

~~a second configuration in which the skin portion and the linkage assembly are retracted within a recessed area in the nacelle~~.

24. (currently amended) The aircraft of claim 23, wherein ~~the skin portion in the second configuration forms an~~ the linkage assembly is further operable to retract within the recess to move the camber skin portion from projecting forward of the camber skin portion forward end to a retracted position in which the camber skin portion aft end aligns with the outer surface static portion to form an aerodynamically smooth outer surface ~~of the housing~~.

25. (currently amended) The aircraft of claim **[[**23**]]** 24, wherein:

the ~~first configuration is used~~ camber skin portion is protected forward during takeoff and landing of the aircraft; and

the ~~second configuration is used~~ camber skin is retracted while the aircraft is in a cruise mode of operation.

26. (currently amended) The aircraft of claim 23, wherein the linkage assembly is coupled to the camber skin portion at two points to alter the curvature of the skin portion about the two points.

27. (currently amended) The aircraft of claim 23, further comprising an actuator coupled to the linkage assembly ~~and the forward end portion~~ for extending and retracting the linkage assembly.

28. (original) The aircraft of claim 23, wherein the linkage assembly includes a four-bar linkage.

29. (original) The aircraft of claim 23, wherein the inlet comprises a side inlet.

30. (currently amended) The aircraft of claim 23, wherein:

the inlet includes a first inlet lip portion and a second inlet lip portion disposed aft of the first inlet lip portion; and

the camber skin portion is ~~hingedly coupled to~~ included in the second inlet lip portion.

31. (currently amended) Apparatus for varying inlet lip geometry of an inlet formed at a forward end portion of a housing for a jet engine, the inlet having a wall that includes an inner surface and an outer surface, the apparatus comprising:

a variable camber skin portion of the outer surface that is hingedly coupled to the inner surface at a ~~to the~~ forward end ~~portion~~ and separable from a static portion of the outer surface at an aft end;

a linkage assembly retractable within a recess of the inlet wall and coupled to the ~~forward end portion and~~ camber skin portion, the linkage assembly operating to rotate the camber skin portion at the forward end ~~relative to the forward end portion and~~ such that the aft end separates from outer surface static portion, moving outwardly and forward from the outer surface static portion, so that the chamber skin portion forms an extension of the inner surface that project forward of the camber skin portion forward end to alter a curvature of the camber skin portion **[[to]]** thereby ~~configure~~ configuring the camber skin portion ~~into a corresponding one of a plurality of configurations, the plurality of configurations including at least:~~

~~a first configuration in which the skin portion forms~~ to form a rounded inlet lip ~~portion extending forwardly of the inlet; and~~

~~a second configuration in which the skin portion and the linkage assembly are retracted within a recessed area in the nacelle~~.

32. (currently amended) The apparatus of claim 31, wherein ~~the skin portion in the second configuration forms an~~ the linkage assembly is further operable to retract within the recess to move the camber skin portion from projecting forward of the camber skin portion forward end to a retracted position in which the camber skin portion aft end

aligns with the outer surface static portion to form an aerodynamically smooth outer surface ~~of the housing~~.

33. (currently amended) The apparatus of claim 31, wherein the linkage assembly is coupled to the camber skin portion at two points to alter the curvature of the skin portion about the two points.

34. (currently amended) The apparatus of claim 31, further comprising an actuator coupled to the linkage assembly ~~and the forward end portion~~ for extending and retracting the linkage assembly.

35. (original) The apparatus of claim 34, wherein the linkage assembly includes a four-bar linkage.

36. (original) The apparatus of claim 31, wherein the housing comprises a nacelle.

37. (original) The apparatus of claim 31, wherein the inlet comprises a side inlet.

38. (currently amended) The apparatus of claim 31, wherein:

the inlet includes a first inlet lip portion and a second inlet lip portion disposed aft of the first inlet lip portion; and

the camber skin portion is ~~hingedly coupled to~~ included in the second inlet lip portion.

39. (cancelled)

40. (cancelled)

41. (currently amended) A method to increase an area of an inlet of ~~operating~~ a jet engine ~~supported within a housing, the~~ housing including ~~a forward end portion and~~ an inlet ~~formed at the forward end portion~~ having a wall that includes an inner surface and an outer surface, the method comprising:

hingedly coupling a variable camber skin portion of the outer surface to the inner surface at a **[[**the**]]** forward end ~~portion of the housing~~, the camber skin portion separable from a static portion of the outer surface at an aft end;

coupling a linkage assembly to ~~the forward end portion and~~ the camber skin portion; and

operating the linkage assembly to rotate the camber skin portion at the forward end ~~relative to the forward end portion and~~ such that the aft end separates from

outer surface static portion, moving outwardly and forward from the outer surface static portion, so that the chamber skin portion forms an extension of the inner surface that project forward of the camber skin portion forward end to alter a curvature of the camber skin portion **[[**to**]]** thereby ~~configure~~ configuring the camber skin portion ~~into a corresponding one of a plurality of configurations, the plurality of configurations including at least:~~

~~a first configuration in which the skin portion forms~~ to form a rounded inlet lip ~~portion extending forwardly of the inlet; and~~

~~a second configuration in which the skin portion and the linkage assembly are retracted within a recessed area in the housing to form an outer surface of the housing~~.

42. (currently amended) The method of claim 41, wherein ~~the skin portion in the second configuration forms an~~ the linkage assembly is further operable to retract within the recess to move the camber skin portion from projecting forward of the camber skin portion forward end to a retracted position in which the camber skin portion aft end aligns with the outer surface static portion to form an aerodynamically smooth outer surface ~~of the housing~~.

43. (currently amended) The method of claim **[[**41**]]**, wherein:

the jet engine is mounted on an aircraft;

the ~~first configuration is used~~ camber skin portion is protected forward during takeoff and landing of the aircraft; and

the ~~second configuration is used~~ camber skin is retracted while the aircraft is in a cruise mode of operation.

44. (original) The method of claim 41, wherein operating the linkage assembly comprises extending and retracting the linkage assembly.

45. (original) The method of claim 44, wherein extending and retracting the linkage assembly comprises actuating an actuator coupled to the linkage assembly.